

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-006081**Date Inspected:** 22-Feb-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Fabrication**Summary of Items Observed:**

CWI Inspectors Mr. Gu Xin Zhou, Mr. Huang Li, Xu Le Feng

On this date CALTRANS OSM Quality Assurance (QA) Inspector Mr. Paul Dawson arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

**OBG Bay 7**

This QA Inspector performed random ultrasonic (UT) inspections of approximately 20 percent length of Tower Lift 3 Skin C weld SSD1-FCSA3-1B/C-8A/B. This weld had previously been ultrasonically inspected and accepted by ZPMC inspection personnel and the weld is listed on ZPMC Notification of Witness Inspection document 002048. The QA Inspector observed the weld that was ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

This QA Inspector performed random ultrasonic (UT) inspections of approximately 20 percent length of Tower Lift 3 Skin C weld ESD1-FCSA3-2B/C-16A/B and ESD1-FCSA3-2B/C-18A/B. These welds had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the welds that were ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

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This QA Inspector performed random ultrasonic (UT) inspections of approximately 20 percent length of Tower Lift 3 Skin E weld ESD1-FESA3-2A/D-16A/B. This weld had previously been ultrasonically inspected and accepted by ZPMC inspection personnel and the weld is listed on ZPMC Notification of Witness Inspection document 002035. The QA Inspector observed the weld that was ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report and the photograph below.

This QA Inspector performed random ultrasonic (UT) inspections of approximately 10 percent length of Tower Lift 3 Skin A weld ESD1-FASA3-2A/E-4. This weld had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the weld that was ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

This QA Inspector performed random ultrasonic (UT) inspections of approximately 10 percent length of West Tower Lift 2 Skin A stiffener to skin plate welds WSD1-SA340D/F-2, WSD1-SA340D/F-4, WSD1-SA340E/F-2, WSD1-SA340E/F-17 and WSD1-SA340E/F-21. These welds had previously been ultrasonically inspected and accepted by ZPMC inspection personnel and several of the welds are listed on ZPMC Notification of Witness Inspection document 002045. The QA Inspector observed the welds that were ultrasonically inspected by this QA Inspector appear to comply with AWS D1.5 UT requirements. ZPMC inspection personnel ultrasonically inspected and rejected welds WSD1-SA340D/F-17, WSD1-SA340D/F-20 and WSD1-SA340E/F-4, WSD1-SA340E/F-9, WSD1-SA340E/F-30 and WSD1-SA340E/F-33. ZPMC personnel were in the process of ultrasonically inspecting additional welds and ZPMC production personnel told all the inspectors and other persons working on this skin plate to stop working because this skin plate is going to be moved. Approximately one hour later the QA Inspector observed this skin plate has been turned upside down and the stiffeners are facing the floor, which limits access to perform inspections of additional welds. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

The QA Inspector observed ZPMC welder Mr. Zhang Mingwu stencil 066283 is the using flux cored welding process to make stiffener to south tower skin D lift 1 weld WSD1-SA294A/G-83. The QA Inspector observed ZPMC Quality Control personnel had recorded Mr. Jiang Xiaohu having a welding current of approximately 308 amps and 30.5 volts. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. Yang Guilong stencil 068919 is the using flux cored welding process to make stiffener to south tower skin D lift 1 weld WSD1-SA294A/G-83. The QA Inspector observed ZPMC Quality Control personnel had recorded Mr. Yang Guilong having a welding current of approximately 308 amps and 30.5 volts. Items observed by the QA Inspector appear to comply with project specifications.

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### Summary of Conversations:

See above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod phone: 134-8257-0045 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Dawson,Paul	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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